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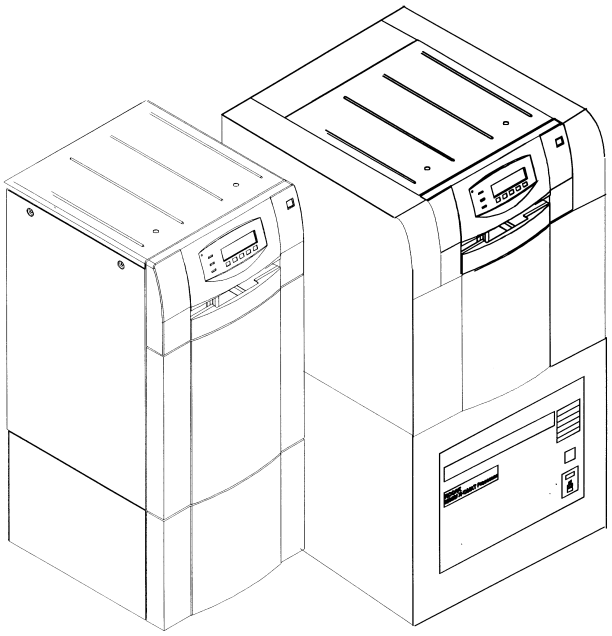
September 2000

SUPPLEMENT to the WIRING DIAGRAMS for the Kodak Miniloader 2000 and Kodak Miniloader 2000P SVC's. 3479 & 3477 with Lightweight Magazine Compatibility

FOR THE USE OF QUALIFIED SERVICE PERSONNEL ONLY



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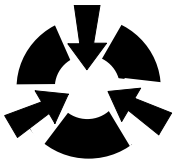

NOTE
This equipment includes parts and assemblies sensitive to damage from electrostatic discharge.
Use caution to prevent damage during all service procedures.

PURPOSE

This Publication only explains the changes to the wiring and circuits now fitted on the later KODAK Miniloader 2000 and KODAK Miniloader 2000P with LIGHTWEIGHT MAGAZINE compatibility and must be used in conjunction with the publication WD 3477 4/98.

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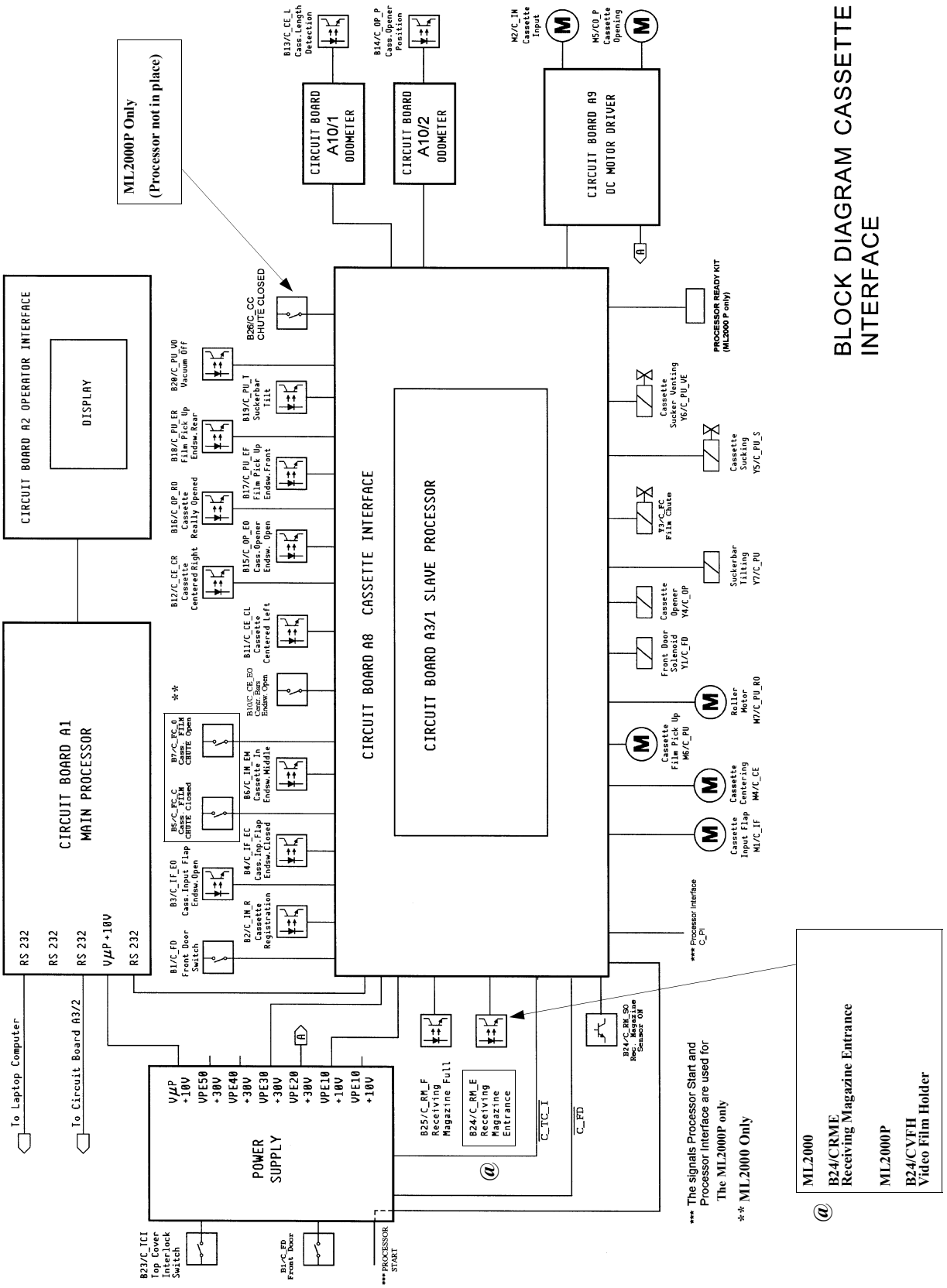
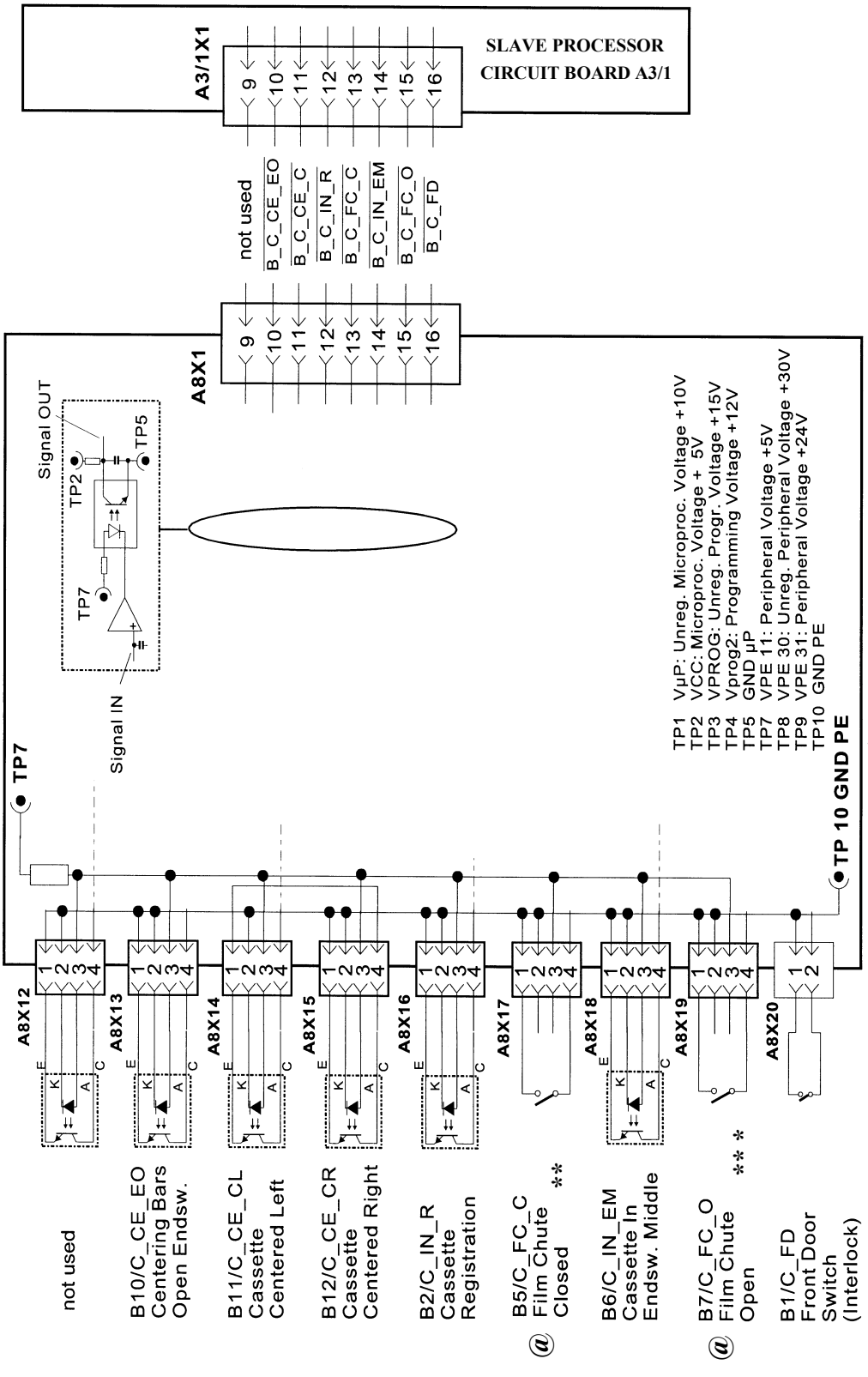
PCB A8 BLOCK DIAGRAM (CASSETTE INTERFACE)


BLOCK DIAGRAM CASSETTE INTERFACE
CIRCUIT BOARD A8 CASSETTE INTERFACE
CIRCUIT BOARD A3/1 SLAVE PROCESSOR
CIRCUIT BOARD A1 MAIN PROCESSOR
CIRCUIT BOARD A2 OPERATOR INTERFACE
DISPLAY
ML2000P Only (Processor not in place)
CIRCUIT BOARD A10/1 ODOMETER
CIRCUIT BOARD A10/2 ODOMETER
CIRCUIT BOARD A9 DC MOTOR DRIVER
PROCESSOR READY KIT (ML2000 P only)
POWER SUPPLY
To Laptop Computer
To Circuit Board A3/2
** ML2000 Only
*** The signals Processor Start and Processor Interface are used for The ML2000P only
ML2000
B24/CRME Receiving Magazine Entrance
ML2000P
B24/CVFH Video Film Holder

PCB A8 WIRING DIAGRAM (CASSETTE INTERFACE)

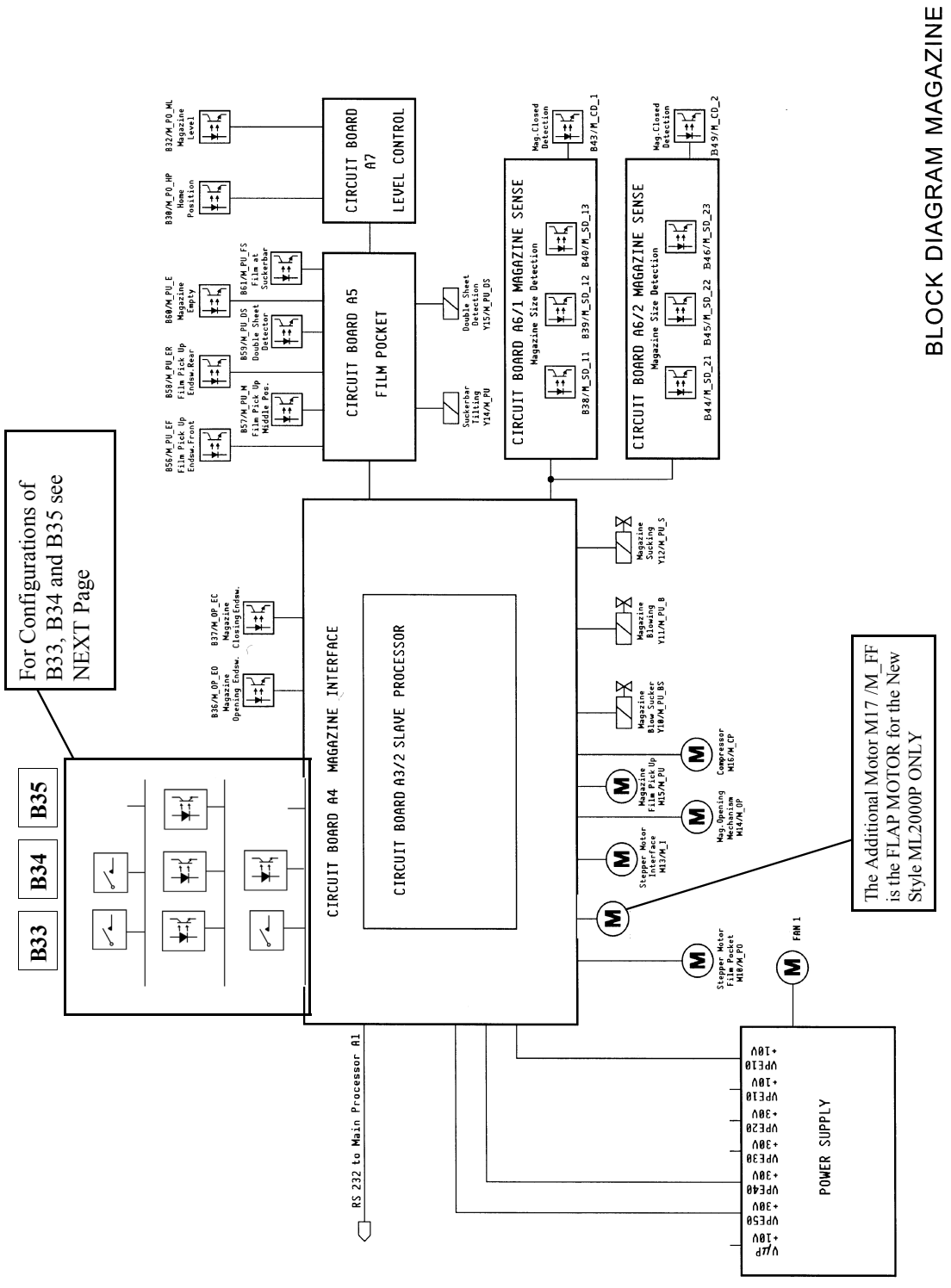


NOTE: There are two B5 switches and two B7 switches. Both pairs are wired in series to provide the two SIGNALS indicated.

** ML2000P B26/C_CC (Chute Closed)

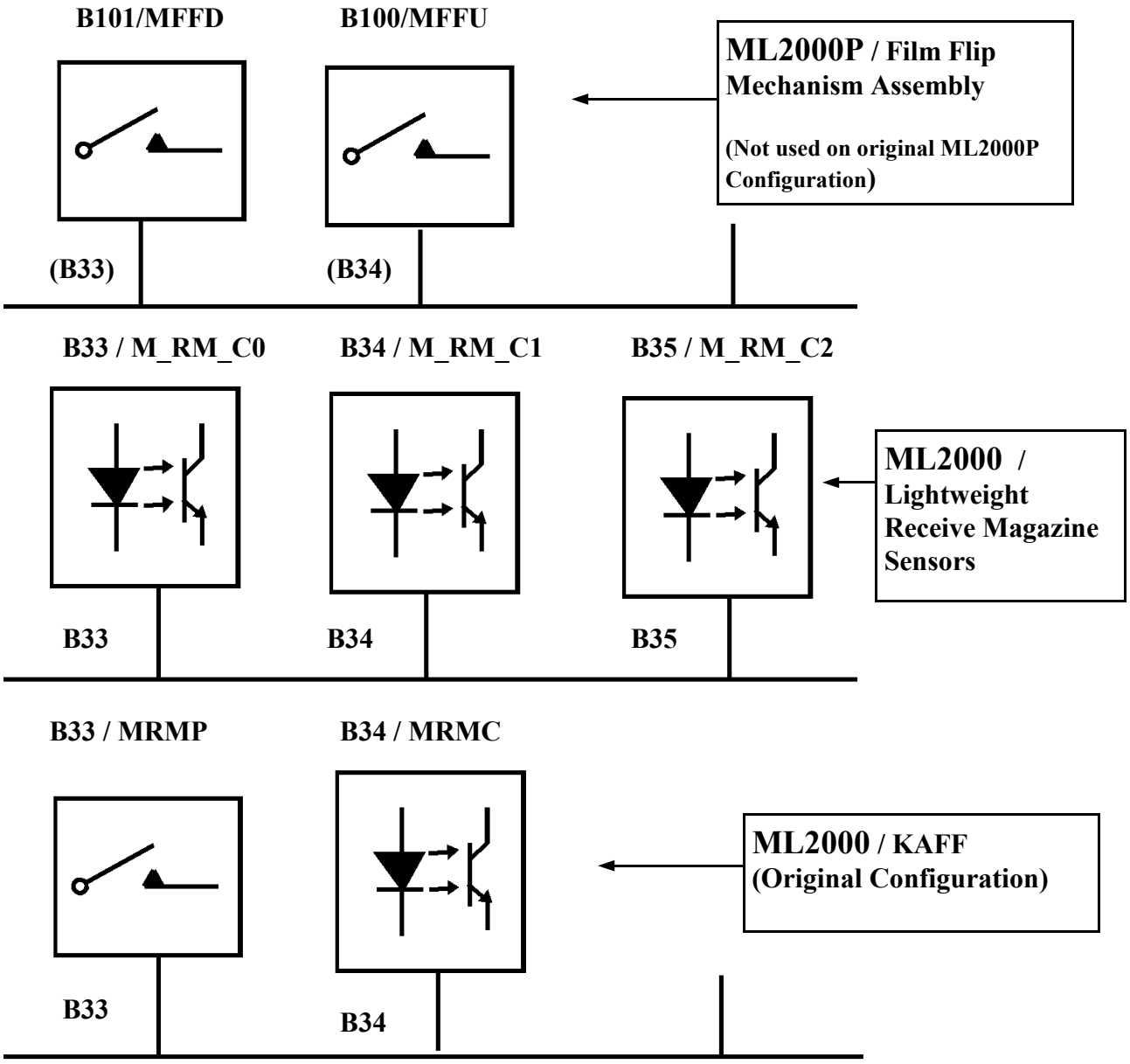
*** ML2000 Only

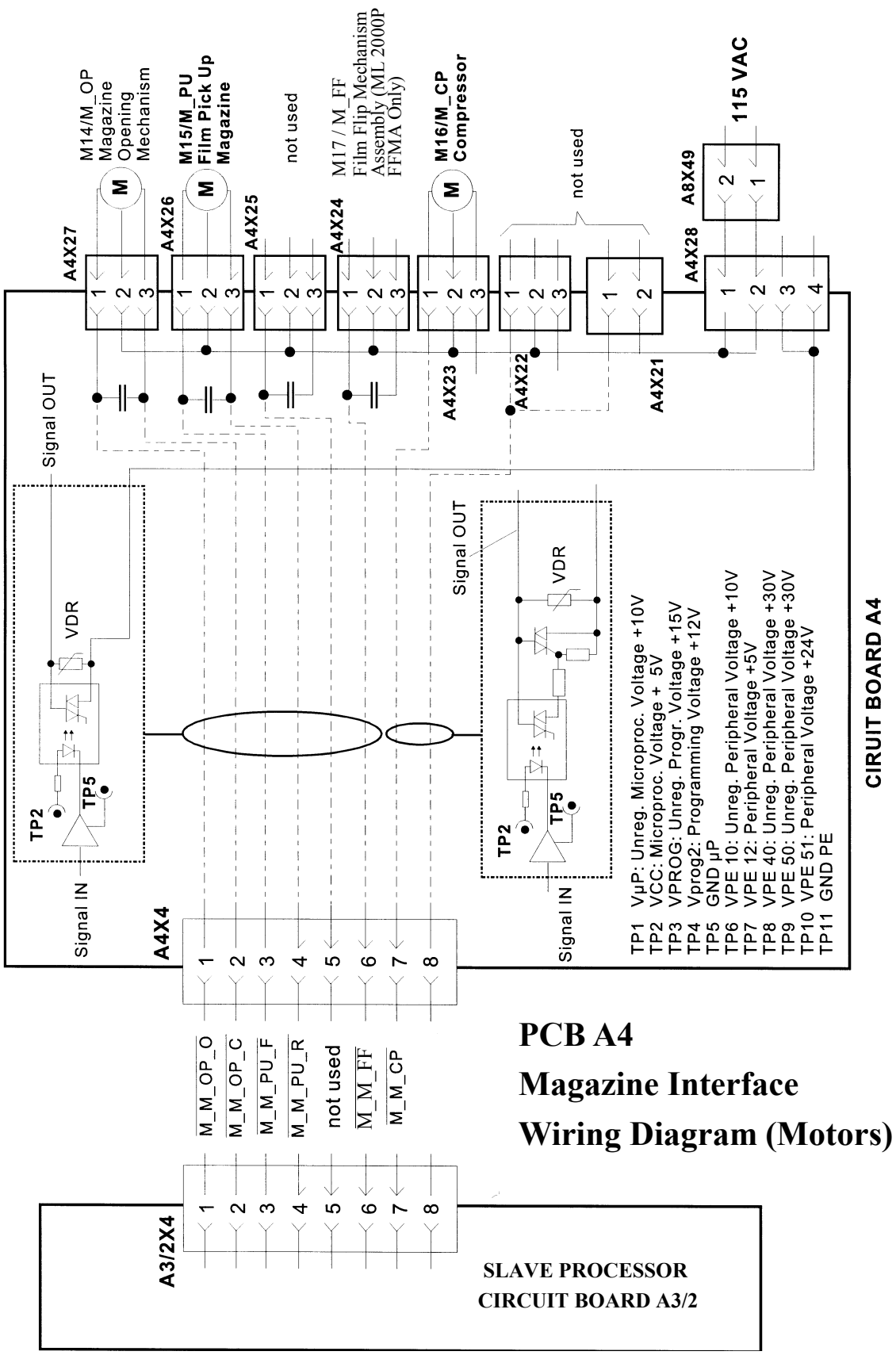
PCB A4 BLOCK DIAGRAM (MAGAZINE INTERFACE)



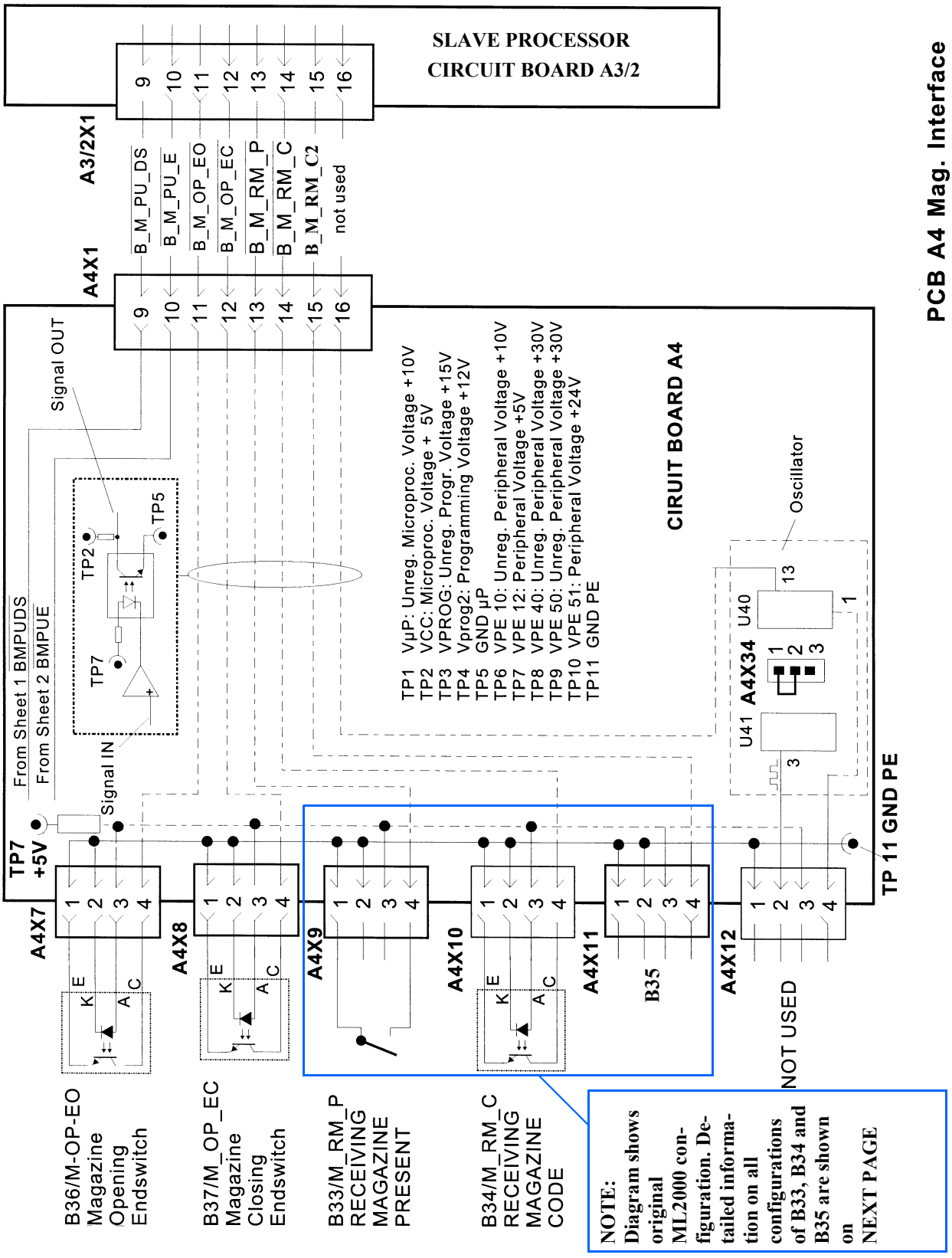
PCB A4 (Block Diagram Detail)

Detail from Previous Page showing the three Configurations possible for the SIGNALS B33, B34 and B35



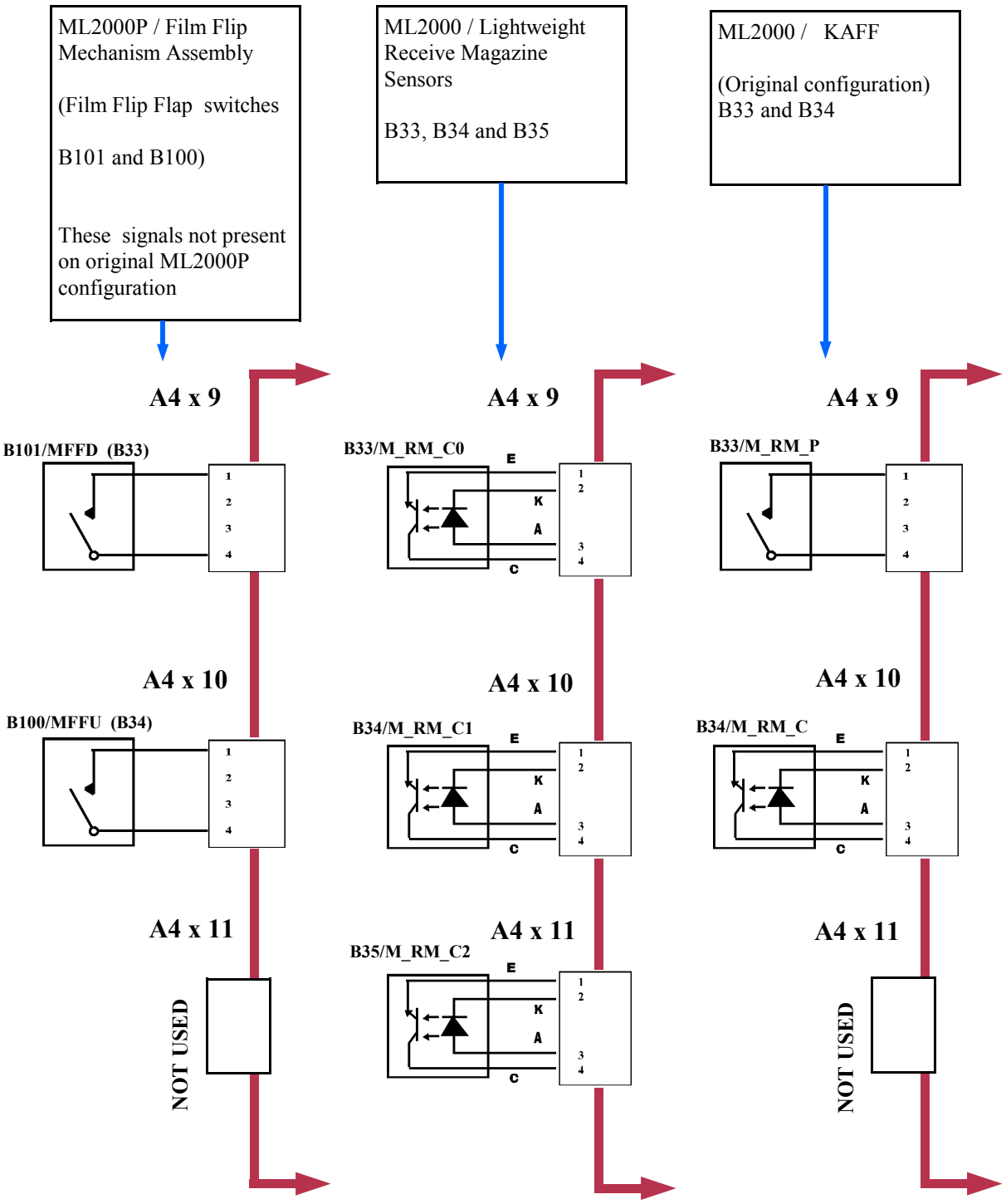

PCB A4 Mag. Interface
M14/M_OP Magazine Opening Mechanism
M15/M_PU Film Pick Up Magazine
not used
M17 / M_FF Film Flip Mechanism Assembly (ML 2000P FFMA Only)
M16/M_CP Compressor
not used
115 VAC
A4X27
A4X26
A4X25
A4X24
A4X23
A4X22
A4X21
A4X28
A8X49
Signal OUT
VDR
TP2
TP5
Signal IN
CIRUIT BOARD A4
TP1 VµP: Unreg. Microproc. Voltage +10V
TP2 VCC: Microproc. Voltage + 5V
TP3 VPROG: Unreg. Progr. Voltage +15V
TP4 Vprog2: Programming Voltage +12V
TP5 GND µP
TP6 VPE 10: Unreg. Peripheral Voltage +10V
TP7 VPE 12: Peripheral Voltage +5V
TP8 VPE 40: Unreg. Peripheral Voltage +30V
TP9 VPE 50: Unreg. Peripheral Voltage +30V
TP10 VPE 51: Peripheral Voltage +24V
TP11 GND PE
A4X4
M_M_OP_O
M_M_OP_C
M_M_PU_F
M_M_PU_R
not used
M_M_FF
M_M_CP
A3/2X4
SLAVE PROCESSOR
CIRCUIT BOARD A3/2
PCB A4
Magazine Interface
Wiring Diagram (Motors)

PCB A4 WIRING DIAGRAM MAGAZINE INTERFACE (Sensors)

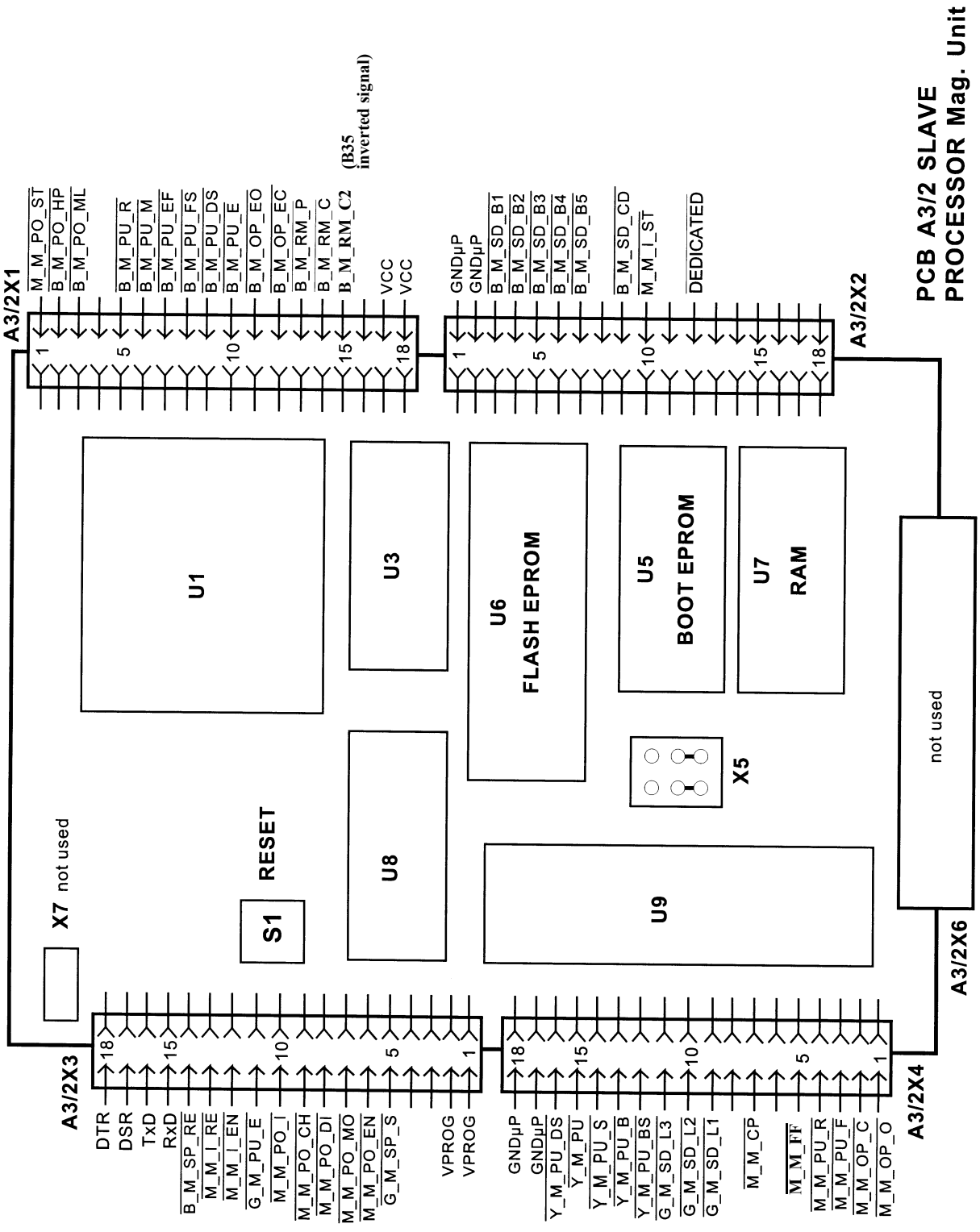


PCB A4 Mag. Interface

A4 Connections - A4 x 9 to A4 x11 - Configurations.



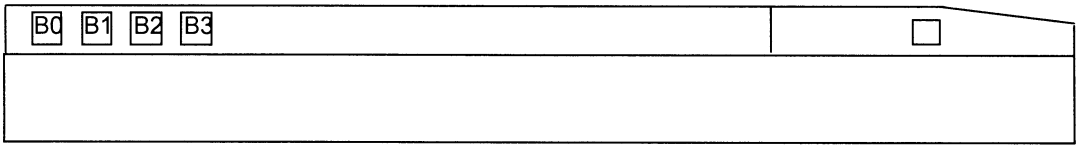
PCB A3/2 Slave Processor Magazine Unit



Magazine Coding

The software installed in The Kodak Miniloader 2000 and Kodak Miniloader 2000P with "Lightweight Receive Magazine Compatibility", has an updated Magazine Code Table. This is in order that the extra codes for the new LIGHTWEIGHT RECEIVE MAGAZINES are recognised by both the Miniloader 2000 and Miniloader 2000P.

Magazine Code-Table:



□ = no reflective tape = logical 1 ■ = reflective code tape = logical 0

Magazine Code	B0	B1	B2	B3 (Type 2)
18x24cm M	■	□	□	□
24x30cm M	■	■	□	□
8x10" V	□	■	□	□
15x30cm X	■	□	■	□
18x24cm M #2	■	□	□	■
24x30cm M #2	■	■	□	■
8x10" V #2	□	■	□	■
15x30cm X #2	■	□	■	■
18x24cm R	□	□	■	□
24x30cm R	□	■	■	□
no Magazine	□	□	□	□

NOTE:
The Mixed Size Option (All-in One Rec. Mag.) for the RECEIVE MAGAZINE is NOT an officially supported function. The OPTION is available in the SOFTWARE.

All-in One Rec. Mag.	■	■	■	□

FUNCTION and SIGNAL TABLE

FUNCTION MAGAZINE SIZE DETECTION

SIGNAL NAME	SENSOR	PURPOSE
$\overline{\text{B\_M\_SD\_B1}}$ $\overline{\text{B\_M\_SD\_B2}}$ $\overline{\text{B\_M\_SD\_B3}}$ $\overline{\text{B\_M\_SD\_B4}}$	See Sensors on PCB A6/1 A6/2	These signals are use to decode the MAGAZINE SIZE.
$\overline{\text{B\_M\_SD\_CD}}$	See Sensors on PCB A6/1 A6/2	This signal is used to detect if the selected MAGAZINE is closed

FUNCTION RECEIVING MAGAZINE

SIGNAL NAME	SENSOR	PURPOSE
$\overline{\text{B\_M\_RM\_P}}$	**ML2000 KAFF** B33/M_RM_P	The signal is LOW when the RECEIVE MAGAZINE is inserted correctly
	ML2000 B33/M_RM_C0 Receive Magazine Code Sensor “0”	The Signal is HIGH if the sensor detects a CODE FLAG
	ML2000P with FFMA B101/MFFD Magazine Film Flip down	The Signal is HIGH if the switch B101 is closed

FUNCTION RECEIVING MAGAZINE (continued)

SIGNAL NAME	SENSOR	PURPOSE
$\overline{\text{B\_M\_RM\_C}}$	**ML2000 KAFF** B34/M_RM_C Receive Magazine Code	LOW = 24 x 30 cm HIGH = 18 x 24 cm
	ML 2000 B34/M_RM_C1 Receive Magazine Code Sensor "1"	The Signal is HIGH if the sensor detects a CODE FLAG
	ML2000P with FFMA B100/MFFU Magazine Film Flip up	The Signal is HIGH if the switch B100 is closed
B_M_RM_C2	**ML2000** B35/M_RM_C2 Receive Magazine Code Sensor "2"	The Signal is LOW if the sensor detects a CODE FLAG

FUNCTION FILM FLIP MECHANISM ASSEMBLY

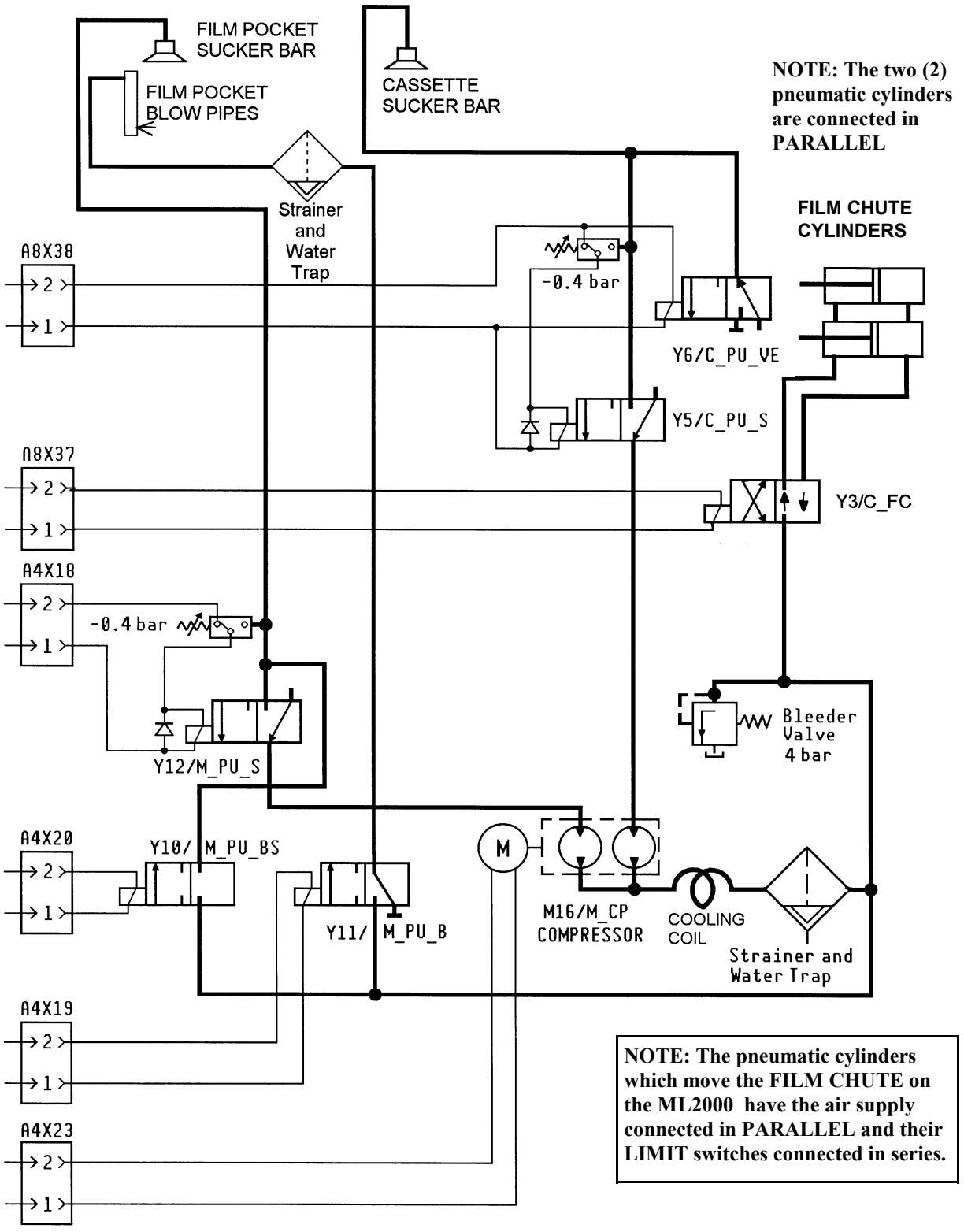
SIGNAL NAME	DESTINATION	PURPOSE
M_M_FF	M17/M_FF Film Flip Motor	If the Signal goes LOW, the MOTOR M17/MFF is turned on.

SIGNAL SUMMARY & DESCRIPTION

MINILOADER MODEL	ML2000 KAFF	ML2000	ML2000P with FFMA
SIGNAL NAME			
B_MRMP	B33 / MRMP LOW = Switch Closed = Receive Magazine Present	B33 / MRMC0 LOW = Tape High at PCB A3	B101 / MFFD High = Switch Closed Flip is DOWN
B_MRMC	B34 / MRMC LOW = Tape	B34 / MRMC1 LOW = Tape High at PCB A3	B100 / MFFU High = Switch Closed Flip is UP
BMRM_C2	NOT PRESENT	LOW = Tape	NOT PRESENT

NOTE:
These Signals are not used in Original ML2000P without FFMA

PNEUMATIC DIAGRAM



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